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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,870	03/24/2005	Christian Bruelle-Drews	11336/926(P02090US)	6224

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INDIANAPOLIS OFFICE 27879
BRINKS HOFER GILSON & LIONE
ONE INDIANA SQUARE, SUITE 1600
INDIANAPOLIS, IN 46204-2033

EXAMINER	
LAO, LUN S	
ART UNIT	**PAPER NUMBER**
2615	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,870	BRUELLE-DREWS, CHRISTIAN	
	Examiner	Art Unit	
	Lun-See Lao	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *03-24-2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. This action is in response to the APPLICATION filed on 03-24-2005. Claims 1-49 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2,6-7,10-15,17,19, 21, 24-26,28, 31-32 and 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Becker (US PAT 6,157,725).

Consider claims 1, 24, Becker teaches an audio system (see fig. 1) for use in a vehicle, comprising:

a plurality of audio sources (5, 11-12) connected to an amplifier (6), where the audio sources are operable to generate a plurality of audio output signals (7) that are supplied to the amplifier; and

a control unit (2) connected with the amplifier (6) for adjusting a balance setting associated with a plurality of speakers (7) based on each of the respective audio sources that generates the audio output signal (see col. 8 line 20-col. 9 line 9), where the control unit (fig.1) includes a user interface (3,4) for setting the balance setting of each audio source (see col. 4 line10-58), where the control unit (2) further adjusts the

balance setting based upon a user preference for each audio source (see col. 7 line 18-63).

Consider claim 12 it is a computer program product claim corresponding to an audio system claim 1. See previous audio system claim 1 rejection.

Consider claim 2 Becker teaches the audio system of the balance setting is further adjusted to output an acoustic driver information message to a speaker positioned near a driver of the vehicle inherently (see fig.1 and col. 7 line 44-col. 8 line 65).

Consider claims 6-7 Becker teaches that the audio system of the control unit (see fig.1 (2) includes an audio manager module operable to control the balance setting of the amplifier connected to the speakers (7 and see col. 8 line 20-col. 9 line 9); and the audio system of the control unit (2) includes a means for adjustment operable to allow a user to adjust the balance setting of the audio sources (7 and see col. 8 line 20-col. 9 line 9).

Consider claims 10-11, 31 Becker teaches that the audio system of the balance setting for each respective audio source is stored in the control unit (see fig.1 and col.8 line 20-col. 9 line 9) and the audio system of the audio source may be selected from a group of audio sources including a navigation system, a tuner, a remote terminal, a compact disc player, a digital video disc player, an MP3 player, a radio data service tuner, a television, a satellite radio, an Internet radio, a cassette player, and a text-to-speech system (see fig.1 and col.8 line 20-col. 9 line 9).

Consider claim 21 it is a computer program product claim corresponding to an audio system claim 11. See previous audio system claim 11 rejection.

Consider claim 38 it is a method claim corresponding to an audio system claim 11. See previous audio system claim 11 rejection.

Consider claims 13-15 Becker teaches the computer program product of further comprising computer readable program code for audibly reproducing the audio output signals on the speakers based upon the respective balance setting of each of the audio sources (see fig.1 and col.8 line 20-col. 9 line 9); and at least one audio output signal comprises an acoustic driver information message generated from a respective audio source (see fig.1 and col.8 line 20-col. 9 line 9); and the computer program product of the respective audio source comprises a navigation system(see fig.1 and col.8 line 20-col. 9 line 9).

Consider claim 17 and 19 Becker teaches that the computer product of the balance setting reduces audio output signals from audio sources other than the navigation system (see fig.1 and col.8 line 20-col. 9 line 9); and the computer program product of the speakers comprise a front and rear set of loudspeakers (reads on surround on, off and see col. 8 line 20-col. 9 line 9).

Consider claims 25 and 28 Becker teaches that the audio system of the amplifier includes a balance setting circuit that is controlled by the head unit (see fig.1 and col. 8 line 20-col. 9 line 9); and the audio system of the head unit includes an audio manager module operable to control the amplifier based upon the balance setting for each respective audio source (see fig.1 and col. 8 line 20-col. 9 line 9).

Consider claim 26 Becker teaches that the audio system of the head unit (see fig.1) includes a user interface module (3,4) for allowing a user to adjust the balance setting of each audio source (see col. 4 line 20-58).

Consider claim 32 Bewcker teaches a method of controlling balance settings (see fig.1) in an audio system for a vehicle, comprising the steps of:

generating a plurality of audio output signals (7) from a plurality of audio sources (5 and 11-12);

transmitting the audio output signals (7) from the audio sources to an amplifier (6);

adjusting (2) a balance setting of each respective audio source with a head unit (2) connected to the amplifier (6); and

reproducing the audio output signals on a speaker (7) based upon the balance setting of each respective audio source (see col. 8 line 20-col. 9 line 9).

Consider claims 36-37 Becker teaches that the method of a respective audio output signal comprises an acoustic driver information message generated by a navigation system (see fig.1 and col. 8 line 20-col. 9 line 9); and the method of the balance setting is positioned such that the acoustic driver information message is reproduced on a speaker chosen by the driver (see col. 6. line 42-67 and col. 8 line 20-col. 9 line 9).

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 39-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Heinrich (US 2002/0067839).

Consider claim 39 Heinrich teaches that an audio system for use in a vehicle comprising:

a plurality of audio sources (see fig.1, 4-8) connected to an amplifier;

a control unit (1) connected to the amplifier (page 3 [0079]);

a passenger category selection module (fig.2) located on the control unit for selecting a passenger category; and

a user interface module located (figs 1-2) on the control unit for adjusting a balance setting of a plurality of speakers (see page 3 [0079]) for the selected passenger category based on a respective audio source that generates an audio output signal (see page 3 [0079] and [0097]-[0101]).

Consider claim 40 Heinrich teaches the audio system of further comprising audio an audio manager module (see fig.1) for controlling the amplifier to audibly reproduce the audio output signal in a predetermined number of speakers (see page 3[0079] such as plural speakers)) based upon the balance setting for each of the audio sources (see col. 6 lines 42-67 and col. 8 line 20-col. 9 line 9).

Consider claims 41-42 Heinrich teaches that the audio system of the passenger category selection module is operable to generate a balance setting graphical user interface that is used to adjust the balance settings of the audio sources (see figs. 1-2 and page 3 [0079] and [0097]-[0101]); and the audio system of the passenger category may be selected from a group of passenger categories including a driver category, a

co-driver category, a backseat passenger category and a children category (see figs. 1-2 and page 3 [0079] and [0097]-[0101]).

Consider claim 43 Heinrich teaches that a method of controlling balance settings in an audio system for a vehicle, comprising the steps of:

selecting a passenger category (see fig.2);

adjusting (see figs.1-2) a balance setting of at least one audio source for the passenger category, and

reproducing audio output signals based on the balance setting for each audio source (see page 3 [0079] and [0097]-[0101]).

Consider claims 44-45 Heinrich teaches that the method of the passenger category is selected through a graphical user interface generated by a passenger category selection module located on the control unit (see figs 1-2 and see page 3 [0079] and [0097]-[0101]); and the method of the passenger category may be selected from a group of passenger categories including a driver category, a co-driver category, a backseat passenger category and a children category (see figs 1-2 and see page 3 [0090] and [0097]-[0101]).

Consider claim 46 Heinrich teaches that a vehicle navigation system (see page 3 [0090]) having a graphical user interface including a display and selection device, a method of providing and selecting from a menu on the display (see figs. 1-2), the method comprising:

- Retrieving (see fig. 2) a set of menu entries associated with the menu, where each of the menu entries represents at least one balance setting associated with each one of a plurality of audio sources;

displaying (see fig.1) at least one of the balance settings associated with each audio source;

receiving (see fig.2) a menu entry selection signal indicative of the selection device pointing at a selected menu entry associated with the balance setting from the set of menu entries; and

- in response to the menu entry selection signal, adjusting the balance setting associated with the audio source as indicated by the menu entry selection signal (see figs. 1-2 and page 3 [0079] and [0097]-[0101]).

Consider claims 47-49 Heinrich teaches the method of the display and selection device comprise a touch-screen display (see page 3 [0097]-[0101]); and a horizontal and vertical scroll bar (such as fade) generated on the touch-screen display are used to adjust the balance setting of each audio source (see figs. 1-2 and [0097]-[0101]); and the method of further comprising the step of reproducing audio output signals on a pluratity of speakers using the balance setting provided for each audio source (see figs. 1-2 and page 3 [0079] and [0097]-[0101]).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 8-9, 20, 22-23, 27 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker (US PAT. 6,157,725) in view of Heinrich (US 2002/0067839).

Consider claims 8-9 Becher does not clearly teach that the audio system of the control unit includes a user interface module operable to allow a user to adjust the balance setting of the audio sources using a touch-screen display; and the audio system of the user interface module generates a balance setting graphical user interface on the touch-screen display that allows a user to adjust the balance setting.

However, Heinrich teaches that the audio system of the control unit (see figs 1-2) includes a user interface module operable to allow a user to adjust the balance setting of the audio sources using a touch-screen display (see page 3 [0097]-[0101]); and the audio system of the user interface module generates a balance setting graphical user interface on the touch-screen display that allows a user to adjust the balance setting (see page 3 [0097]-[0101]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Heinrich into Becker to provide a more convenient entertainment audio system to the user.

Consider claims 20 and 22-23 Becker does not clearly teach the computer program product further comprising computer readable program code for generating a graphical user interface on a display capable of allowing the user to adjust the balance setting; and the computer program product of further comprising computer readable

program code for setting the balance setting for each audio source based on a passenger category; and the computer program product of the passenger category may include a driver, a co-driver, at least one child, or at least one adult passenger.

However, Heinrich teaches the computer program product further comprising computer readable program code for generating a graphical user interface on a display capable of allowing the user to adjust the balance setting (see figs 1-2 and page 3 [0097]-[0101]); and the computer program product of further comprising computer readable program code for setting the balance setting for each audio source based on a passenger category (see figs. 1-2); and the computer program product of the passenger category may include a driver, a co-driver, at least one child, or at least one adult passenger(see figs 1-2 and page 3 [0097]-[0101]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Heinrich into Becker to provide a more convenient entertainment audio system to the user.

Consider claim 27 Becker does not clearly teach that the audio system of the user interface is generated on a touch-screen display.

However, Heinrich teaches that the audio system of the user interface is generated on a touch-screen display (see figs 1-2 and page 3 [0097]-[0101]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Heinrich into Becker to provide a more convenient entertainment audio system to the user.

Consider claim 33 Becker does not clearly teach the method of the balance setting of each audio source is adjusted by an occupant of the vehicle with a graphical user interface.

However, Heinrich teaches the method of the balance setting of each audio source is adjusted by an occupant of the vehicle with a graphical user interface (see figs 1-2 and page 3 [0097]-[0101]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Heinrich into Becker to provide a more convenient entertainment audio system to the user.

Consider claims 34-35 Heinrich teaches that the method of the graphical user interface includes a vertical and horizontal scroll bar (such as, fade for adjusting the balance setting (see page 3 [0079]); and the method of the graphical user interface is generated on a touch-screen display in the vehicle (see page 3 [0072] and see the discussion above 33).

7. Claims 3-5, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker (US PAT. 6,157,725) in view of Huemann (US PAT. 5,661,811).

Consider claim 3 Becker does not clearly teach that the audio system of the audio output signals from other audio sources are muted from the speaker positioned nearest the driver while the acoustic driver information message is being played on the speaker positioned nearest the driver.

However, Huemann teaches that the audio system (se fig.2) of the audio output signals from other audio sources are muted from the speaker positioned nearest the driver while the acoustic driver information message (such as, the driver selects AM/FM and does not select other source) is being played on the speaker positioned nearest the driver (see col. 2 line 20-col. 3 line 67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Huemann into the teaching of Becker to provide more convenient entertainment audio system to the driver and the back seat passenger.

Consider claims 4-5 Huemann teaches that the audio system of audio output signals from other audio sources play uninterrupted (such as, the driver selects the front speaker and turns off the rear speakers) by the acoustic driver information message in at least one speaker not positioned nearest the driver (see col. 2 line 20-col. 3 line 67); and the audio system of the acoustic driver information message is muted (such as, the driver selects the front speaker and turn off the rear speakers) from the audio output signals sent to the speakers not positioned nearest the driver(see col. 2 line 20-col. 3 line 67).

Consider claim 16 Becker and Heinrich does not clearly teach that the balance setting generates the acoustic driver information message in a speaker nearest a driver of the vehicle.

However, Huemann teaches that the balance setting (see fig.2) generates the acoustic driver information message (such as AM/FM) in a speaker nearest a driver of the vehicle.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Huemann into the teaching of Becker and Heinrich to provide more convenient entertainment audio system to the driver and the back seat passenger.

Consider claim 18 Becker teaches that the computer program product of the balance setting mutes audio output signals from audio sources other than the navigation system (see fig.1, 11) in the speaker to the driver of the vehicle (see col. 7 line 44-col. 8 line 65); but Becker does not clearly teach the speaker nearest the driver of the vehicle.

However, Huemann teaches the speaker nearest the driver of the vehicle (see figs 1-2 (20) and col. 2 lines 43-67)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Huemann into the teaching of Becker and Heinrich to provide more enhance audio outputting signal to the driver.

8. Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker (US PAT. 6,157,725) in view of Venkatesh (US PAT. 7,039,197).

Consider claim 29, Becker teaches that the audio system of one audio source comprises a navigation system (see fig. 1, (11)) for generating an acoustic driver information message and the balance setting is set to audibly reproduce the acoustic

driver information message in a respective speaker positioned near a driver of the vehicle inherently (see col. 7 line 43-col. 8 line 67); but Becker does not clearly teach that the balance setting is set to audibly reproduce the acoustic driver information message only in a respective speaker positioned near a driver of the vehicle.

However, Venkatesh teaches that the balance setting (see figs. 26-27) is set to audibly reproduce the acoustic driver information message (such as a recording voice memo) only in a respective speaker (front speaker) positioned near a driver of the vehicle (see col. 28 line 51-col. 30 line 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Vankatesh into the teaching of Becker to provide more privacy communication system to the driver and the back seat passenger.

Consider claim 30 Venkatesh teaches that the audio system (see figs. 26-27) of other audio sources continue in a predetermined number of other speakers uninterrupted (such as turn off the rear speakers) by the acoustic driver information message.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Koizumi (US PAT. 5,745,583) is cited to show other related audio system with balance setting based on information addresses.

10. Any response to this action should be mailed to:

Mail Stop ____(explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents
P.O. Box 1450
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Facsimile responses should be faxed to:
(571) 273-8300

Hand-delivered responses should be brought to:
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501 The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao,Lun-See L. S.
Patent Examiner
US Patent and Trademark Office
Knox
571-272-7501
Date 01-19-2006

VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600